

IN THE CLAIMS:

LISTING OF ALL CLAIMS:

Claims 1-10. (Canceled)

11. (Previously presented) A semiconductor device as claimed in claim 31,
wherein said substrate for a basic structure contains
(1) a material of formula LnABO_4 or $\text{LnAO}_3(\text{BO})_n$,
wherein,
Ln is a rare earth element,
A is selected from the group consisting of Fe, Ga and Al,
B is selected from the group consisting of Mn, Co, Fe, Zn, Cu, Mg, and Cd.
12. (Previously Presented) The semiconductor device as claimed in Claim 11,
wherein Ln is selected from the group consisting of Sc, In, Lu, Yb, Tm, Ho, Er and Y.
13. (Previously Presented) The semiconductor device as claimed in Claim 11,
wherein the group II metal oxide is selected from the group consisting of zinc oxide (ZnO), zinc magnesium oxide ($\text{Mg}_x\text{Zn}_{1-x}\text{O}$), zinc cadmium oxide ($\text{Cd}_x\text{Zn}_{1-x}\text{O}$) and cadmium oxide (CdO).
14. (Previously Presented) The semiconductor device according to claim 11,
wherein said substrate is a material selected from the group consisting of ScAlMgO_4 , ScAlZnO_4 , ScAlCoO_4 , ScAlMnO_4 , ScGaZnO_4 , ScGaMgO_4 , $\text{ScAlZn}_3\text{O}_6$, $\text{ScAlZn}_4\text{O}_7$, $\text{ScAlZn}_7\text{O}_{10}$, $\text{ScGaZn}_3\text{O}_6$, $\text{ScGaZn}_5\text{O}_8$, $\text{ScGaZn}_7\text{O}_{10}$, $\text{ScFeZn}_2\text{O}_5$, $\text{ScFeZn}_3\text{O}_6$, and $\text{ScFeZn}_6\text{O}_9$,
and,
ZnO is used as a material for said semiconductor layer.
15. (Previously Presented) The semiconductor device according to claim 11,
wherein said substrate is a material selected from the group consisting of ScAlO_3 , $(\text{ZnO})_n$, $\text{ScFeO}_3(\text{ZnO})_n$, $\text{ScGaO}_3(\text{ZnO})_n$, $\text{InFeO}_3(\text{ZnO})_n$, $\text{InGaO}_3(\text{ZnO})_n$, $\text{InAlO}_3(\text{ZnO})_n$, $\text{YbAlO}_3(\text{ZnO})_n$, and $\text{LuAlO}_3(\text{ZnO})_n$,
and,
ZnO is used as a material for said semiconductor layer.
16. (Canceled)
17. (Previously Presented) The semiconductor device according to claim 11,
further comprising a buffer layer, between said substrate and said semiconductor layer,

wherein said buffer layer contains a material having a composition or a structure identical to that of said semiconductor layer as a base and slightly doped or undoped with impurities.

18. (Previously Presented) The semiconductor device according claim 17, wherein ZnO is used for said semiconductor layer, and said buffer layer is an insulating material slightly doped with an element capable of taking valence of 1 value or a group V element, an insulating material containing undoped and pure insulating ZnO or a combination thereof.

19. (Previously Presented) The semiconductor device according to claim 18, wherein said buffer layer is ZnO.

20. (Previously Presented) The semiconductor device according to Claim 11, further comprising an insulating layer formed by using a material identical to that for said substrate for a basic structure.

21. (Previously Presented) The semiconductor device according to claim 11, further comprising a light emission layer formed on said semiconductor layer by using a material having a composition or a structure identical to that of said semiconductor layer as a base, and

a second semiconductor layer which is formed on said light emission layer by using a material having a composition or a structure identical to that of said semiconductor layer, and which has carriers that have a different conductive sign from carriers of said semiconductor layer.

22. (Previously Presented) The semiconductor device according to claim 21, wherein said light emission layer is selected from the group consisting of a multilayer structure of (Mg, Zn)O and ZnO, a multilayer structure of (Zn, Cd)O and ZnO, and a multilayer structure of (Mg, Zn)O and (Zn, Cd)O.

23. (Previously Presented) The semiconductor device according to claim 11, wherein input and output electrodes are further formed on said semiconductor layer.

Claims 24-30 (Canceled)

31. (Currently amended) A semiconductor device comprising, a substrate for a basic structure containing

(1) a material of formula LnABO_4 or $\text{LnAO}_3(\text{BO})_n$,

wherein,

Ln is a rare earth element,

A is selected from the group consisting of Fe, Ga and Al,

B is selected from the group consisting of Mn, Co, Fe, Zn, Cu, Mg, and Cd, or

(2) a material of formula ScAlBeO_4 , ScBMgO_4 , ScBBeO_4 , or
 $\text{LnAO}_3(\text{MgO})_n$

wherein,

Ln is a rare earth element,

A is selected from the group consisting of Fe, Ga and Al;

and

a semiconductor layer formed on said substrate,

wherein said semiconductor layer is formed from a material comprising a group II metal oxide;

wherein said semiconductor layer is formed on said substrate by depositing said semiconductor layer at temperatures from 350 °C to 600 °C, so to achieve high nitrogen doping concentration therein.

32. (Canceled)

33. (Canceled)